

CATALYST COMPOSITION PREPARATION AND USE

Abstract

5 A bulk metal oxide catalyst composition of the
general formula
$$(X)b(M)c(Z)d(O)e (I)$$

wherein
X represents at least one non-noble Group VIII metal;
10 M represents at least one non-noble Group VIb metal;
Z represents one or more elements selected from
aluminium, silicon, magnesium, titanium, zirconium,
boron, and zinc;
one of b and c is the integer 1;
15 and
d and e and the other of b and c each are a number
greater than 0 such that the molar ratio of b:c is in the
range of from 0.5:1 to 5:1, the molar ratio of d:c is in
the range of from 0.2:1 to 50:1, and the molar ratio of
20 e:c is in the range of from 3.7:1 to 108:1; is prepared
by controlled (co)precipitation of component metal
compounds, refractory oxide material, and alkali compound
in protic liquid. Resulting compositions find use in
hydrotreatment processes involving particularly
25 hydrodesulphurisation and hydrodenitrification.